WEST Search History

DATE: Friday, March 14, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L14	(ablat$ or fluorin$) and L12	20	L14
L13	(ablat$ or fluor$)L12	0	L13
L12	chamber same clean$ same laser	225	L12
DB=DWPI; PLUR=YES; OP=ADJ			
L11	316835 or 606648 or 771638	17	L11
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L10	(4699689| 5223112| 5478401| 5480492| 5531857| 5863327)![pn]	12	L10
L9	L8 and chamber	19	L9
L8	markoff and laser	73	L8
L7	L2 and ((134/$)!.CCLS.)	40	L7
L6	L2and ((134/$)!.CCLS.)	0	L6
L5	L4 and deposits	118	L5
L4	L3 and (wafer or substrate or semiconductor)	310	L4
L3	L2 same gas	467	L3
L2	laser same chamber same clean$	1003	L2
DB=USPT; PLUR=YES; OP=ADJ			
L1	((438/905)!.CCLS.) and laser	13	L1

END OF SEARCH HISTORY

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L14: Entry 2 of 20 File: JPAB Dec 26, 2001

PUB-NO: JP02001358386A
DOCUMENT-IDENTIFIER: JP 2001358386 A
TITLE: LASER DISCHARGE CHAMBER PASSIVATION BY PLASMA

PUBN-DATE: December 26, 2001

INVENTOR-INFORMATION:
NAME COUNTRY
WATSON, TOM A
SANDSTROM, RICHARD L
MORTON, RICHARD G
WEEKS, ROBERT E
QUITTER, JOHN P
LEWIS, MARK R

ASSIGNEE-INFORMATION:
NAME COUNTRY
CYMER INC

APPL-NO: JP2001111974
APPL-DATE: March 6, 2001

INT-CL (IPC): H01 S 3/03; H01 L 21/027

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a method and device for cleaning and passivating a laser discharge chamber by plasma.

SOLUTION: Oxygen-based plasma is formed at an external plasma source by guiding and applying a high-frequency signal to a gas containing oxygen. The oxygen-based plasma is drawn into a laser discharge chamber, reacts with a contaminant, and cleans the internal surface. After cleaning, fluorine-based plasma is formed at the plasma source, and is drawn into the laser discharge chamber to passivate the inner surface. In another embodiment, the oxygen-based plasma and fluorine-based plasma are formed in the laser discharge chamber by applying a high-frequency signal to a laser discharge chamber electrode, thus exciting the gas containing oxygen and that containing fluorine.

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L14: Entry 11 of 20 File: DWPI Sep 13, 2001

DERWENT-ACC-NO: 2001-625866
DERWENT-WEEK: 200206

TITLE: Passivation of laser discharge chamber involves reacting fluorine-based plasma with internal surfaces of chamber

INVENTOR: LEWIS, M R; MORTON, R G ; QUITTER, J P ; SANDSTROM, R L ; WATSON, T A ; WEEKS, R E

PATENT-ASSIGNEE:

ASSIGNEE	CODE
CYMER INC	CYMEN

PRIORITY-DATA: 2000US-0518970 (March 6, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200166272 A1	September 13, 2001	E	021	B08B007/00
JP 2001358386 A	December 26, 2001		032	H01S003/03
AU 200139820 A	September 17, 2001		000	B08B007/00

DESIGNATED-STATES: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 200166272A1	February 21, 2001	2001WO-US05628	
JP2001358386A	March 6, 2001	2001JP-0111974	
AU 200139820A	February 21, 2001	2001AU-0039820	
AU 200139820A		WO 200166272	Based on

INT-CL (IPC): B08 B 7/00; B08 B 7/04; H01 L 21/027; H01 S 3/03; H01 S 3/036

ABSTRACTED-PUB-NO: WO 200166272A
BASIC-ABSTRACT:

NOVELTY - A laser discharge chamber is passivated by forming a fluorine-based plasma from gas or gases comprising a fluorine-containing gas; and reacting the fluorine-based plasma with internal surfaces of the laser discharge chamber.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a laser discharge chamber passivating apparatus comprising a source of gas or gases including a fluorine-containing gas and coupled to the chamber; a source of a radio frequency (RF) signal; and an antenna electrically coupled to the source of RF signal which is applied to the gases to form a plasma.

USE - For passivating a laser discharge chamber.

ADVANTAGE - The invention allows plasma cleaning and passivation of laser discharge chambers to be safer, more efficient and more effective than conventional thermal cleaning and passivation processes. The method does not require the use of dangerous fluorine gas. It is also much less time-consuming.

DESCRIPTION OF DRAWING(S) - The figure shows an apparatus that includes an external plasma source for cleaning and passivating a laser discharge chamber.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS: PASSIVATION LASER DISCHARGE CHAMBER REACT FLUORINE BASED PLASMA INTERNAL SURFACE CHAMBER

DERWENT-CLASS: L03 P43 V08

CPI-CODES: L03-F02; L03-H04D;

EPI-CODES: V08-A01C; V08-A04B;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C2001-186415
Non-CPI Secondary Accession Numbers: N2001-466554